# Purchasing Receipts

Print

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200 Fax 613 632-5246

11/22/2018

e e	te.	ter	- e	- D	T
Supplier	\$8.94 McMaster- Carr Supply Co.	\$7.13 McMaster-Carr Supply Co,	\$94.84 McMaster- Carr Supply Co.	\$246.88 McMaster- Carr Supply Co.	
Total	\$8.94	\$7.13	\$94.84	\$246.88	\$357.79
Past					97
Aging Days	_	-	-	-	
Price/Unit	\$ 1.49 / ft	\$1.19/#	\$23.71/ft	\$ 15.43 / ft	
Receive Date	Stock 11/21/2018 \$ 1.49 / ft	Stock 11/21/2018 \$ 1.19/ft	Stock 11/21/2018 \$ 23.71 / ft	11/21/2018 \$ 15.43 / ft	
Status	Stock	Stock	Stock	Stock	
Container No	S130461	S130462	S130463	\$130464	
Received Accounting Container Status Receive Price/Unit Aging Past Quantity Job No No					
Received Quantity	9	©	4	16	32
Due	6 11/19/2018	11/20/2018			
Order	9		4	16	32
Equipment Order ID Qty					Total:
Part No					
Description Part Project	Dowel Pin Ø6mm x 40mm	Tool Steet Round Bar 0.250 dia.: Material: AlSI 01 TOOL STEEL ROUND BAR DIN 1.251 or B.S. BO 1 or SAE J437 or SAE J438 or UNS T31501 or ASTM A681	MDELRINR2.250 color: White: MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL	UHMW Bar, Black, 3" Wide, 3/4"" Thick, 4 ft. long	
Purchased Item	88625K65	MT-O1-R0.250	MDELRINR2.250 color: White: MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL receive ft	8702K566	
Terms	Net 30			ω	
Rei	-				
Item No	10	2	16	17	
PO No Supplier Item No No	MCM001- VU				
PO No	P0041721 MCM001-				

Plex 11/22/2018 10:11 AM dart. Tollis. Andrew



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON **K6A 1K7** Canada

**PURCHASE ORDER** PO041721

Tel (613) 632-5200

Supplier: MCM001-VU

McMaster-Carr Supply Co,

P.O. Box 7690

Chicago, IL 60680-7690 USA

Phone: 330 995 5500 Fax: 330 995 9600

Due Date:

PO No:

PO Date:

Purchase Order Revision:

Revision Date:

Ship-To Contact: Lavoie, ChantalPhone: clavoie@dartaero.com

Ground

PO041721

11/14/18

11/19/18

Via: **Pymt Terms:** 

Items

2% 10 Net 30

Freight Terms: **Special Comments:** 

Hawkesbury

1270 Aberdeen Street

9435K81

91251A371

91166A290

91415A125

4053K751

2214A5

16823

50715K179

51495K116

ON

Ship To:

Job

Line

Item

1

2

3

4

5

6

K6A 1K7 Canada Phone: 613-632-5200

Part

Supplier

Part No

Resistant

0.276" ID

Long

Steel

0-300 Psi

Fitting for

COUPLING 1/2"

NCKL PLTD **BRASS** 

Tubing 1/pack

5/pk

5/pk

100/pk

25/pk

1/pk

1/pack

1/pk

4053K15

Order Received Unit Extended Description Status Account Date Quantity Quantity Balance Price (USD) Price 302 Stainless Firmed 11/19/18 5 Ea 0 Ea 5 Ea \$1.472/Ea \$7.36 Steel Corrosion-Compression Springs, 0,813" Long, 0.36" OD, Black-Oxide Firmed -11/19/18 5 Ea 0 Ea 5 Ea \$1.874/Ea \$9.37 Allov Steel Socket Head Screw, 5/16"-24 Thread Size, 4" Washer M12 -Firmed -11/19/18 100 Ea 0 Ea 100 Ea \$0.0695/Ea \$6.95 Nut M12 X 1.5 Firmed 11/19/18 100 Ea 100 Ea 0 Ea \$0.352/Ea \$35.20 Pressure Gauge, Firmed -11/19/18 12 Ea 0 Ea 12 Ea \$30.67/Ea \$368.04 Magnetic Base Firmed -11/19/18 12 Ea 0 Ea 12 Ea \$33.73/Ea \$404.76 85195A999 Giant Swiss Arm Firmed -11/22/18 3 Ea 0 Ea 3 Ea \$435.76/Ea: \$1,307.28 w/o Mag. Base Female Pipe 11/19/18 Firmed 4 Ea 0 Ea 4 Ea \$25.36/Ea \$101.44 Adapter SS 37 Degree Flared Stainless Steel

Plex 11/14/18 12:58 PM dart.lavoie.chantal

6 Ea

\$7.78/Ea

\$46.68

0 Ea

Firmed -

11/19/18

6 Ea



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

Tel (613) 632-5200

#### **PURCHASE ORDER** PO041721

19						Items							
X 40mm		Job	Part		Description	Status	Account				Balance		Extended Price
With Cartificate of to 1.000° Range X 0.001°   10.100° Range X 0.001°   10.000° Range X 0.001° Range X 0	11			3 ft long		Firmed	And the control of th	11/19/18	6 ft	3	6 ft		1
Section   Bar 0.250 dia   Material   All 101 TOOL   STEEL ROUND   BAR   All 101 TOOL   STEEL ROUND   BAR   DIN 1.2510 or   S.S. B.9.1 or   S.AE .4338   or UNS 731501   or ASTM A6811   Section   All 12 pcs   O pcs   12 pcs   \$5.64/pcs   \$61	11/2		And an extension of the state of the state of	1/pk	with Certificate 0" to 1.000" Range X 0.001" Increments			11/19/18	12 Ea	0 Ea	12 Ea	\$96,43/Ea	\$1,157.16
13				6 ft long	Bar 0.250 dia. : Material: AISI 01 TOOL STEEL ROUND BAR DIN 1.2510 or B.S. BO 1 or SAE J437 or SAE J438 or UNS T31501	Firmed	-	11/19/18	6 ft				
14	13	186327	Company on the appropriate from the common		Disconnect	Firmed	•	11/19/18	12 pcs	0 pcs	12 pcs	\$5.64/pcs	\$67.68
15	Item Note	AS PER	DWG D4182 REV, E	3	The street was come to be a second				in the second of the second	arm of the Prophetical Administra	w v v	ALLES TO STATE OF THE PARTY AND ADDRESS OF THE	
AS PER DWG D2712 REV. B  16	14	186331	91525A120		: AS PER DWG	Firmed	•	11/19/18	100 pcs	0 pcs	100 pcs	\$0.232/pcs	\$23.20
## A Color: White : MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL receive ft  17	15	186332	92311A599		AS PER DWG	Firmed	-	11/19/18	200 pcs	0 pcs	200 pcs	\$0.22/pcs	\$44.00
17 8702K566 4 ft long UHMW Bar, Black, 3" Wide, 3/4" Thick, 4 ft. long ltem Note 4 pcs of 4 ft  18 98017A615 500/pk Flat Washer #6 Firmed - 11/19/18 500 Ea 0 Ea 500 Ea \$0.01924/Ea \$\$	16 / At	1			color: White : MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL	Firmed	-	11/19/18	4 ft				\$94.84
18 98017A615 500/pk Flat Washer #6 Firmed - 11/19/18 500 Ea 0 Ea 500 Ea \$0.01924/Ea \$5	17 A(		8702K566		UHMW Bar, Black, 3" Wide, 3/4" Thick, 4 ft.	Firmed	•	11/19/18	16 ft	1	16 ft		\$246.88
	Item Note	4 pcs of				and the second				The same of the party	and the same of the same of		
SS	18		98017A615	500/pk	Flat Washer #6 Ss	Firmed		11/19/18	500 Ea	0 Ea	500 Ea	\$0.01924/Ea	\$9.62



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

#### **PURCHASE ORDER** PO041721

Tel (613) 632-5200

#### **Order Notes**

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A016 PERSONNEL QUALIFICATION

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 DOCUMENT SPECIAL REQUIREMENTS

A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENTS

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/14/18 12:58 PM dart.lavoie.chantal



## **Packing List**

200 Aurora Industrial Pkwy Aurora OH 44202-8087 330-995-5500 cle.sales@mcmaster.com Dart Aerospace Ltd 1270 Aberdeen St Hawkesbury ON K6A 1K7 Canada Purchase Order PO041721

Order Placed By Chantal Lavoie

McMaster-Carr Number 4124925-01

Page 1 of 1 11/15/2018

Lin	e	Product		Ordered Sh	nipped
10	88625K65	Tight-Tolerance Multipurpose O1 Tool Steel Rod, 6 mm [	Diameter, 3 Feet Long	2 Each	2
12	8893K204	Tight-Tolerance Multipurpose O1 Tool Steel Rod, 0.250"	Diameter, 6 Feet Long	1 Each	DAS 61
16	8572K31	White Delrin® Acetal Resin Rod, 2-1/4" Diameter, 4' Leng	ıth ·	4 Feet	9-89
17	8702K566	UHMW Bar, Black, 3" Wide, 3/4" Thick		16 Feet	16
Exp	pected to sh	ip			
7	85195A999	Giant Swiss Arm Only, 19" Total Height #16823	7 .	3 Each	3 Nov 26-30
11	8662A61	Combination Dial Plunger-Style Variance Indicator with N Measuring Range	IST Certificate & 0" to 1"	12 Each	<b>10</b> Nov 26-Dec 10

Tight-Tolerance Multipurpose O1 Tool Steel Rod 6 mm Diameter, 3 Feet Long

S6.48 Each 88625K65



Material Cross Section

Shape

Construction Appearance

Diameter Diameter

Tolerance 0.013mm Tolerance

Rating

Yield Strength

Temper Rating

Hardness

Hardness Rating

Heat

Treatable

Maximum Hardness after Heat Treatment

Mechanical

Finish

Temperature

Range

Specifications

Met

Straightness

Tolerance

Density Coefficient of

Thermal Expansion

Elongation

Material Composition

Iron Carbon

0.85-1.05% 0.40-0.70%

O1 Tool Stee

Round

Solid

Plain

6mm

-0.013mm to

**Tight** 

50,000 psi

Softened (Annealed)

Rockwell B90

Medium

Yes

Rockwell C62

Precision Ground

Not Rated

ASTM A681

Not Rated

0.28 lbs./cu. in.

 $7.1 \times 10^{-6}$ 

25%

94.79-96.95%

Chromium

 Manganese
 1.00-1.40%

 Nitrogen
 0.40-0.60%

 Phosphorus
 0-0.030%

 Silicon
 0-0.50%

 Sulfur
 0-0.030%

 Tungsten
 0.40-0.60%

 Vanadium
 0-0.30%

Length 3 ft.

Additional Guidelines for Hear Specifications Treating Tool Steel

RoHS Compliant

These precision-ground rods have a tight diameter tolerance. Commonly used for dies, punches, and gauges. Of tool steel is an oil-hardening material that resists wear and abrasion.

UHMW Bar Black, 3" Wide, 3/4" Thick

In stock \$15.43 per ft. 8702K566



Material UHMW Plastic Cross Section Rectangle Shape Construction Solid Texture Smooth Color Black Clarity Opaque Thickness 3/4" Thickness -0.070" to Tolerance +0.070" **Tolerance Rating** Standard Width Width Tolerance -1/16" to +1/16" 1 ft., 2 ft., 3 ft., 4 Length ft., 5 ft. Length Tolerance -1/8" to +1/8" Backing Type Plain Hardness Durometer 700 Hardness Rating Medium For Use Outdoors No Temperature -20° to 180° F Range Impact Strength 16.80 ft.-lbs./in. Impact Strength Excellent Rating Tensile Strength 2,400 psi Tensile Strength Poor Rating Specifications Met **ASTM D4020** Density 0.034 lbs./cu. n Coefficient of 0.19 Friction Dielectric Strength 450 V/Mil Water Absorption 0.01% Coefficient of  $1.4 \times 10^{-4}$  in./in./ Thermal Expansion

RoHS

Compliant

Commonly used as machine guards and as liners in chutes and hoppers. These sheets, bars, and strips have a slippery surface and excellent abrasion, wear, and impact resistance.

# Tight-Tolerance Multipurpose O1 Tool Steel Rod 0.250" Diameter

8893K204



Material
Cross Section
Shape
Construction
Appearance
Diameter
O1 Tool Steel
Round
Round
O1 Tool Steel
Round
O25"

Diameter -0.0005" to 0.0005

Tolerance Tight Rating

Yield Strength 50,000 psi

Temper Softened (Annealed)
Rating

Hardness Rockwell B90

Hardness

Rating Medium

Heat

Yes Treatable

Maximum Hardness after Heat

Rockwell C65

Treatment Mechanical

Precision Ground

Temperatur

Temperature Not Rated

Range

Finish

ange

Specifications

ASTM A681

Met

Straightness

Not Rated

Tolerance

Density

Coefficient of

0.28 lbs./cu. in.  $7.1 \times 10^{-6}$ 

Thermal

Expansion

25%

Elongation Material

Composition

Iron 94.79-96.95%

Carbon

0.85-1.05%

Chromium

0.40-0.70%

Manganese 1.00-1.40% Nitrogen 0.40-0.60% Phosphorus 0-0.030% Silicon 0-0.50% Sulfur 0-0.030% Tungsten 0.40-0.60% Vanadium 0-0.30% Length 3 ft., 6 ft.

Additional Guidelines for H
Specifications Treating Tool Str

RoHS Compliant

These precision-ground rods have a tight diameter tolerance. Commonly used for dies, punches, and gauges. Of tool steel is an oil-hardening material that resists wear and abrasion.

U BY APPROVED VM AISI O1 TOOL STEEL ROUND BAR COPPRIGHT © 2017 BY CART AFROSPACE LTD

SATISFACE AND SATI MT-01-R 17.08.09 DATE DESCRIPTION NEW ISSUE BYILL NY REV. MT-01-R [D.DDD] WHERE "D.DDD" = DIAMETER IN INCHES EG. 5/8" ROUND BAR = MT-01-R0.625 SPECIFICATION CONTROL DRAWING PURCHASE MATERIAL: AISI O1 TOOL STEEL ROUND BAR DIN 1.2510 or B.S. BO 1 or SAE J437 or SAE J438 or UNS T31501 or ASTM A681 SPECIFICATION: PART NUMBER: Ø

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#### MATERIAL RECEIPT INSPECTION FORM

MATERIAL: <u>MT-0</u> DATE: <u>(8/11/</u>	22	2.25		PO / BATCH	NO.: <u>Pooy</u>	1721/5130					
MATERIAL CERT REC'D: 1/25		THI	CKNESS ORDE	RED: 0-2	50"						
QUANTITY RECEIVED: 64				THICKNESS RECEIVED: 0-250"							
QUANTITY INSPECTED: 6 A											
		-	SHEET SIZE ORDERED: SHEET SIZE RECEIVED:								
QUANTITY REJECTED:			SHE	ET SIZE RECEI	VED:						
DECORIDION		CR		COMMENT							
DESCRIPTION	,	eck N)		COMMENTS							
SURFACE DAMAGE	Υ	N									
CORRECT FINISH	(Y)	N									
CORROSION	Υ	N									
CORRECT GRAIN DIRECTION	(A)	N									
CORRECT MATERIAL PER M-DRAWING	(4)	N	STM 4681								
CORRECT THICKNESS	(A)	N									
PHOTO REQUIRED	Y	8									
CORRECT REF # TO LINK CERT	<b>(A)</b>	Ν	041721								
ORRECT MATERIAL IDENTFICATION		Ν									
CORRECT M# ON THE MATERIAL	(Ŷ)	N									
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(N)									
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	N)									
CUT SAMPLE PIECE					SS CHECK.						
			RESULTS BELOV		DIID E	T=====					
VDE OF MATERIAL			HRB	DUR A	DUR D	WEBSTER					
YPE OF MATERIAL											
SIZE OF TEST SAMPLE											
IARDNESS / DUROMETER READII	VG										

QC 18 INSPECTION ENGINEERING SIGNOFF (if required)

DATE: /8/11/ SIGNED OFF BY: \_\_\_\_\_\_\_\_ DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

White Delrin® Acetal Resin Rod 2-1/4" Diameter

In stock \$24.13 per ft. 8572K31



Material

Delrin® Acetal
Plastic

Cross Section
Shape

Construction

Solid

Texture Smooth
Color White
Clarity Opaque
Diameter 2 1/4"

Diameter 0" to +0.030"

Tolerance Oversized Rating

Length 1 ft., 2 ft., 3 ft., 4 ft., 5 ft.

Hardness Rockwell M90

Hardness Rating

For Use Outdoors

Temperature -20° to 180° F

Impact 1.00 ft.-lbs./in.

Impact Strength Good

Rating

Tensile 9,000 psi

Tensile
Strength Good

Rating
Specifications ASTM D6100,
Met NSF/ANSI Standa

NSF/ANSI Standard 51 for Food Contact. NSF/ANSI Standard 61 for Drinking Water

Density 0.051 lbs./cu. in.

Coefficient of 0.20

Friction

Dielectric

435 V/mil

Strength

Water

0.30%

Absorption

Coefficient of

 $8.5 \times 10^{-5}$  in./in./°F

Thermal

Expansion

RoHS

Compliant

SPECIFICATION CONTROL DRAWING

0

PURCHASE MATERIAL : (PELRIN) 150E OR ACETRON GP ACETAL

PART NUMBER:

M-DELRIN-R D.DDD X COLOR B CODE

U

WHERE D.DDD = DIAMETER IN INCHES B X = COLOR CODE(V) = WHITE, OMITTED = BLACK

EG. 1" BLACK ROUND BAR = M-DELRIN-R1.000 2" WHITE ROUND BAR = M-DELRIN-R2.000W

17.10.19 01.11.12 DART AEROSPACE LTD
DARWRESBURY, ONTARIO, CANADA
M-DELRIN-R
TITLE DATE SAD SAD DART AEROSPACI
SAD HAWKESBURY, ONTARIO, CA
RA M-DELRIN-R
HS TITE
CP 1/7 DELRIN ROUND BAR B MATERIAL COLOR "WHITE" ADD REASON CIR.110. ADD "ACETRON GP ACETAL" AS OPTION (REV. A1). DESIGN SAD DRAWN SAD CHECKED RF MFG. APPR. RA APPROVED HS DE APPR. CP DATE 17.10.19 NEW ISSUE REV.

REV. B SHEET 1 OF 1 SCALE

COPYRIGHT & 2001 BY DART AEROSPACE LTD
THE DOCUMENT BY PRINKE AND DESCRIPTION OF SAFEKED TO ARE CARREST COME OF THE CARREST CO

APPROVED

2018 MAR 27 40 En 18-657

GEOVELES

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#### MATERIAL RECEIPT INSPECTION FORM

MATERIAL: <u>MOELR</u> DATE: <u>18/11/2</u>					PO / BATCH	NO.:	2041	721/5130463	
MATERIAL CERT REC'D: Vs QUANTITY RECEIVED: YS+ QUANTITY INSPECTED: YS+ QUANTITY REJECTED:		THICKNESS ORDERED: 2.250" THICKNESS RECEIVED: 2.250" SHEET SIZE ORDERED: - SHEET SIZE RECEIVED: -							
DESCRIPTION		CR eck N)				COMMEN	TS		
SURFACE DAMAGE	Y	(N)							
CORRECT FINISH	Y	N							
CORROSION	Υ	Ŵ							
CORRECT GRAIN DIRECTION	(A)	N							
CORRECT MATERIAL PER M-DRAWING	V	N	DELRIN						
CORRECT THICKNESS	(X)	Ν							
PHOTO REQUIRED	Y	Ø							
CORRECT REF # TO LINK CERT	(A)	Ν	1004173	4					
CORRECT MATERIAL IDENTFICATION		Ν							
CORRECT M# ON THE MATERIAL	(A)	N							
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Υ	(0)							
DOES THIS REQUIRE AN EXTRUSION REPORT	Υ	(3)							
CUT SAMPLE PIECE			TERIAL AN ORD RESU			A HARDNE	SS CHE	ECK.	
			HRC	HRB		DUR A	DUF	۲D	WEBSTER
TYPE OF MATERIAL									
SIZE OF TEST SAMPLE	Ì								
HARDNESS / DUROMETER READIN	VG								
	te	sters	located in ti	he Quality	Office		•		

QC 18 INSPECTION ENGINEERING SIGNOFF (if required)